

We claim:

- Sub
Br
5
1. A method of forming a bone composite, comprising:
providing bone tissue;
grinding said bone tissue to form ground bone tissue;
molding the ground bone tissue into a bone composite;
optionally applying a binder to the bone composite;
optionally milling or refining the bone composite to the desired shape.
- 10
2. The method of claim 1, wherein the bone tissue is substantially cortical bone tissue.
- 15
3. The method of claim 2, wherein the bone tissue is substantially demineralized.
4. The method of claim 2, wherein the bone tissue is greater than 50% cortical bone tissue.
- 20
5. The method of claim 2, wherein the bone tissue is greater than 70% cortical bone tissue.

6. The method of claim 1, wherein the ground bone tissue is greater than 90% cortical bone tissue.

7. The method of claim 1, wherein the ground bone tissue is greater than 95% cortical bone tissue.

8. The method of claim 1, wherein the ground bone tissue is from 125 to 850 microns in size.

9. The method of claim 1, wherein the molding step occurs at from 14.7 p.s.i. to about 30,000 p.s.i.

10. The method of claim 1, wherein the binder is applied to the ground bone before the molding step.

11. The method of claim 1, where the binder is applied to the ground bone after the molding step.

12. The method of claim 1, wherein the binder is applied by an injection, spray, bath, soaking or layering.

13. The method of claim 1, wherein the binder comprises fibrin.

14. The method of claim 1, wherein the binder comprises cyanoacrylates.

Sub C5 15. The method of claim 12, wherein the cyanoacrylates comprise ester
5 chain, N-butyl, or butyl cyanoacrylates.

16. The method of claim 12, wherein the cyanoacrylates are long chain
cyanoacrylates.

Sub C6 17. The method of claim 1, wherein the bone composite is a bone pin, screw
10 or prosthesis.

18. The method of claim 1, wherein the molding step further comprises the
application of pressure and shaping the composite with a die.

15 19. A bone tissue composite, comprising:
ground bone tissue molded to form a desired shape; and
a binder selected from at least one of a cyanoacrylate or fibrin.

20 20. The bone tissue composite of claim 19, wherein the bone tissue is
substantially cortical bone tissue.

21. The bone tissue composite of claim 19, wherein the bone tissue is more than 50% cortical bone tissue.

22. The bone tissue composite of claim 19, wherein the bone tissue is more than 70% cortical bone tissue.

23. The bone tissue composite of claim 19, wherein the bone tissue is more than 90% cortical bone tissue.

24. The bone tissue composite of claim 19, wherein the bone tissue is more than 95% cortical bone tissue.

25. The bone tissue composite of claim 19, wherein the ground bone tissue is from 125 to 850 microns in size.

26. The bone tissue composite of claim 19, wherein the desired shape is molded at from 14.7 psi to about 30,000 psi.

27. The bone tissue composite of claim 19, wherein the binder comprises fibrin.

28. The bone tissue composite of claim 19, wherein the binder comprises cyanoacrylates.

29. The bone tissue composite of claim 19, wherein the cyanoacrylates
5 comprise ester chain, N-butyl, or butyl cyanoacrylates.

30. The bone tissue composite of claim 19, wherein the cyanoacrylates are long chain cyanoacrylates.

10 31. The bone tissue composite of claim 19, wherein the bone composite is a bone pin, screw or prosthesis.

Sub B35
32. A method of forming a bone composite, comprising:
providing bone tissue,
15 grinding said bone tissue to a size of from 125 to 850 microns in size to form ground bone tissue,
molding the ground bone tissue under pressure to form a bone composite,
introducing a cyanoacrylate binder to the bone composite.